

ART. XIX.—*Contributions to the Flora of Australia,*  
*No. 18.*<sup>1</sup>

BY

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(With Plates LII-LVI.).

[Read 12th October, 1911.].



BARTSIA LATIFOLIA, Sibth. and Sm. "Common Bartsia."  
(Scrophulariaceae.)

Cheltenham, Victoria, J. R. Tovey, 23/9/1911.

A form with white flowers. The plants occurred in a single large patch mixed with plants having flowers of the normal colour, so that it cannot be a peculiarity due to the soil. The peculiarity does not appear to have been noticed before in this plant, and it will be of interest to note whether white-flowered forms reappear in the same locality and spread to new ones.

BATTAREA PHALLOIDES, Dicks. (Pers. Syn. 129, t3, f. I. Sacc.  
Syll. VII. 195). (Fungi. Basidiomycetes)

Growing in sand under *Leptospermum laevigatum*, North Brighton, Victoria, C. French, Jnr., 6/8/1911.

New locality. Only previously recorded in Victoria from the North-West. Also found in West and South Australia.

<sup>1</sup> No. 17 in Proc. Roy. Soc. Victoria, vol. xxiv. (n.s.), 1911, p. 61.

BOSSIAEA MICROPHYLLA, Sm. "Small-leaved Bossea." (Leguminosae.)

Eastern slope of Brisbane Ranges, P. R. H. St. John, 17/9/1911.

The most southerly locality in Victoria hitherto recorded for this species.

CAPPARIS UMBONATA, Lindl. (Capparideae.)

Napier Broome Bay, North-West Australia, G. F. Hill, Dec., 1909, No. 32.

The specimen has adult fruits, and Bentham apparently had unripe fruits only for examination. Hence a description is appended.

Fruit of *Capparis umbonata*.—Fruit usually about  $1\frac{1}{2}$  inches in diameter. Glabrous, woody, indehiscent, globular when ripe, with no protuberance on top. Seeds about 5 to 10 embedded in a hard, almost woody, pulp. Stipes  $2\frac{1}{2}$  to 3 inches long.

CASUARINA LUEHMANNII, R. T. Baker. "Bull Oak." (Casuarineae.)

Growing on plain between Brisbane Ranges and Parwan, P. R. H. St. John, October 17th, 1911.

The furthest southern locality recorded for this species in Victoria.

CHLORIS ABYSSINICA, Hochst, "Abyssinian Rhodes-Grass" (Gramineae).

Pearcedale, May, 1911. Ch. Cox.; Kerang, Victoria, July, 1911, per Law, Somner and Co.

This useful grass, a native of Abyssinia, has been frequently cultivated, and is now evidently becoming naturalised in this State.

CORYPHA, L. (Muss. Cliff. 11. (1736), Gen. Ed. 1.), (Palmae).

CORYPHA ELATA, Roxb. in Hort. Beng., 25; Fl. Ind., 176.  
Determined by O. Becarri.

Lower Gilbert River, Queensland. J. O. Rully.

This characteristically East Indian species is the sole representative of the genus in Australia.

ERYTHROSTACHYS PROLIFERA (T. Ag.). J. White. (Algæ.  
Rhodomelaceæ.)

Encounter Bay, South Australia. D. Hussey.

A new genus of *Alga* named by T. Agardh, but undescribed. This specimen was sent to Major Reinboldt at Itzehoe, and returned by him as a genus unknown to him, and also to the Keeper of the Agardh Herbarium at Lund. It is hoped that by publishing this description the search for further material of this interesting plant may be stimulated.

This specimen is purely vegetative, no trace of reproductive organs being visible. It apparently belongs to the family *Rhodomelaceæ*. Frond stipitate, the stalk cylindrical, and in this specimen about 5 inches long, and in its thickest portion about half a line in diameter. The frond is prolifically branched, the branches arising in lateral groups alternately along the frond, at intervals of from one to two lines. These primary branches are usually less than an inch in length, are filiform and branch rather freely to form secondary branches alternately.

The secondary branches give off numerous short tertiary branches alternately, which tend to become crowded towards the tip, where the secondary branches become spirally swollen. The tertiary branches soon after their origin divide usually into two branches, which taper to a rather fine point.

The whole plant is covered externally by a rather thick, gelatinous sheath, the same material forming the intercellular material. The tertiary branches are strongly articulate.

The stalk of the frond, primary and secondary branches, is solid, and composed of a large number of somewhat elongated cells, about 3 to 6 rows of the more peripheral of which are less regular and filled with highly coloured, apparently structureless contents, the cells tend to become more elongated towards the centre, and are completely filled with granular contents which are probably physodes and impart a cellular appearance to the cell contents. The tertiary and ultimate branches are only one cell thick.

EUCALYPTUS CAMPHORA, R. T. Baker. "Sallow or Swamp Gum." (Myrtaceae.)

Sutherland's Creek, about six miles south of Steiglitz, Victoria. P. R. H. St. John. 16/9/1911.

A new locality in Victoria for this species.

GASTROLOBIUM ROTUNDIFOLIUM, Meissn. Leguminosae.

Strawberry, West Australia, Dr. Stoward, 4/9/1911.

The only specimens of this species in the National Herbarium previously were those of Drummond, No. 99, from West Australia. without detailed locality.

GLADIOLUS GRANDIS, Thunb. "Large-flowered Gladiolus." (Irideae.)

Eltham, Victoria, P. R. H. St. John, 23/9/1911.

A native of South Africa. May be classed as a garden escape, apparently in process of naturalisation.

GREVILLEA LANIGERA, A. Cunn., and G. ROSMARINIFOLIA, A. Cunn.

In Bentham's *Flora Australiensis*, Vol. V., page 444, four species are recognised under these heads—namely, *G. lanigera*, A. Cunn.; *G. ericifolia*, R. Br.; *G. divaricata*, R. Br.; and *G. rosmarinifolia*, Cunn.—but Bentham suggests that the last three species may be all referable to a single one. Baron Mueller in the last Census drops *G. ericifolia* and *G. divaricata*, but gives no indication as to which species they are referred. The leaf characters are highly variable, and by themselves could not be relied on to distinguish more than one species with leaves varying, as regards hairiness, pointed character, breadth and amount of longitudinal inrolling.

In *G. lanigera*, A. Cunn. (*G. ericifolia*, R. Br.), the ovary is densely villous. In *G. rosmarinifolia*, A. Cunn. (*G. divaricata* R. Br.), the ovary is glabrous, or with a small tuft of hairs at the base on the upper side. Both species run close together, but there appears on the whole to be a general external difference of facies, difficult to express in precise or defi-

nite terms. Hence it seems advisable to retain two species as above for this set of plant forms, but certainly not more than two, and to refer *G. ericifolia* to *G. lanigera*, *G. divaricata* to *G. rosmarinifolia*.

GULUBIA, Becc. in Ann. Jard. Buitenzorg. 11.131 (1885).  
(Palmae.) G. Ramsayi, Becc., in Webbia 111 (1910), p.  
159, f. 6a. Determined by O. Beccari.

Port Essington, North Australia.

This Malayan genus apparently extends to North Australia, and may possibly be also represented there by other species yet to be discovered.

HYMENOPHYLLUM PELTATUM (Poir), Desv. (*H. WILSONI*, Hook.)  
(*H. UNILATERALE*, Willd.) (Filices.)

Cradle Mountains, Tasmania, C. Sutton, January, 1911.

This appeared at first to be possibly a new species allied to *H. tunbridgense*, Sm., and *H. multifidum*, Sw., partly on account of the regular occurrence of the sori in pairs on the upper surfaces of the axils of the pinnules. Later specimens showed that the sori also occur singly, and that paired sori occur in specimens originally referred to a variety *Wilsoni* of *H. tunbridgense*, but now generally recognised as a distinct species as above. The plant differs from *H. tunbridgense* in having a more cylindrical and less spatulate column, and pear-shaped induzia (when adult), instead of more orbicular ones. The sporangia are perhaps more like those of *H. multifidum*, but somewhat smaller.

MALCOLMIA MARITIMA, R. Br. "Virginian Stock." Cruciferae.

Claremont, West Australia, Dr. Stoward, 6/9/1911.

This hardy annual, a native of Southern Europe, often grown in gardens, is now evidently growing wild in the Claremont district of West Australia, and may be classed an exotic not yet sufficiently established to be considered naturalised.

*MATRICARIA INODORA*, L. "Scentless Chamomile." (Compositae).

Coode Island, Victoria. J. R. Tovey and C. French, Jnr., October, 1908.

A native of Europe and Asia. This introduced plant may be now classed as an exotic, not yet sufficiently established to be considered naturalised.

*MILLA* (*TRITELIA*) *UNIFLORA*. R. Grah. "Triplet Lily."  
(Liliaceae.)

Apparently growing wild in Fawkner Park, Melbourne. J. W. Audas. 13/9/1911.

*OLEARIA PANNOSA*, Hook. "Velvet Aster." (Compositae.)

Anglesea, Victoria, A. G. Campbell, November, 1906.

Brisbane Ranges, Victoria, P. R. H. St. John, 16/9/11.

The most southerly locality in Victoria for this species hitherto recorded.

*OXYLOBIUM CALLISTACHYS*, Benth. (Leguminosae.)

Heath ground at Sandringham, C. French, Jr., October, 1911; Mentone, Victoria, C. R. Roberts, January, 1911.

This plant was originally supposed to be *O. alpestre*, a native species. (See Proc. Roy. Soc. Victoria, 1911, p. 71.) Material has now been obtained in all stages, and the mode of dehiscence of the pod shows it to belong to the above species, which is native to West Australia. Mr. French supposed the plant to be a garden escape. Mr. Roberts states that:—

"It grows in springy peat land about a quarter of a mile from the road, and there is no garden or cultivated ground nearer than perhaps half to three-quarters of a mile. It grows in a copse perhaps twenty feet square, shrubs up to six or seven feet high in the midst of native plants. I do not think that the *Oxylobium* could have been artificially planted there, although there are no others near it that I have seen for miles around. Its nearest point to the sea would be half a mile. As there are a number of these plants growing together I can only think that perhaps originally the seed must have been evacuated by a bird."

However it has reached the shores of Port Phillip, this plant, native to West Australia, seems to be in process of establishing itself as a "naturalised alien" so far as this State is concerned.

PIMELEA TREYVAUDI (F. v. M.), *nomen nudum*, in Vict. Nat., Vol. XI., May, 1894. (Thymelaeaceae), p. 2, Ewart and Rees.

Cudgewa, Upper Murray River, H. H. Treyvaud.

There is no record of any published description of this species, and as it appears to be a valid one, a description is appended beneath.

Small branching shrub about 12 inches in height, glabrous, or nearly so.

Leaves flat, linear to lanceolate,  $\frac{3}{4}$  to 1 inch in length, lower ones shorter and narrower, with distinct intra-marginal vein, opposite.

Flower heads 7 to 8 lines in diameter, 8 to 9 bracts about the same length as flowers, ovate lanceolate, acuminate, glabrous on under surface, edges fringed with silvery hairs, which are much longer at the base than towards the tip, upper surface covered with silky hairs which are much thicker towards the base.

Flowers hermaphrodite, perianth tube about  $1\frac{1}{2}$  lines long, hairy outside with tufts of longer hairs at the base, practically glabrous inside, segments about the same length as the tube, the two inner rather blunter and paler coloured than the outer, and finer in texture. Anthers oblong, connective narrow, filaments shorter than anthers and inserted near the mouth of the tube. No fruit with the specimen. It seems nearest to *P. nervosa*, but differs from it in the size of the leaves, in the number and form of the bracts, in length of the perianth tube and of the filaments.

POLYGONUM ATTENUATUM, R. Br. (Polygonaceae.)

Jones' Creek and George River, south of Roeburne, West Australia, J. Forrest, 1878.

## POMADERRIS FERRUGINEA, Sieb. (Rhamnaceae.)

Western slope of Brisbane Ranges, South Victoria, P. R. H. St. John, September, 1911. About 3½ feet high.

In the Fragmenta, Vol. III., page 69, Mueller made this species as well as *P. lanigera*, *P. phillyroides* and five other specific names synonyms to *P. elliptica*. At the same time, however, he raised a new species, *P. grandis*, differing less from *P. elliptica* than the other species suppressed in its favour. In the last Census all the species are given as valid excepting *P. ferruginea*, thus agreeing with Bentham except on this one point. In Moore's "Flora of New South Wales" *P. ferruginea* is given as a variety of *P. elliptica*.

It seems best, however, to retain all these species, since the development of hairs upon which the distinctions between the species are largely based, though not usually reliable, seem in this case to be remarkably constant and to be associated with other characters. The villous calyx distinguishes *P. ferruginea* and *P. lanigera* from *P. elliptica*, whose leaves are white beneath, instead of more or less rusty. *P. ferruginea* has the upper surface of the leaf smooth, while in *P. lanigera* it is rough with minute white hairs.

## PRASOPHYLLUM FUSCO-VIRIDE, Reader. (Orchidaceae.)

Dr. R. S. Rogers informs me that he has during the past two years examined the orchid generally known in South Australia as *P. Tepperi*, Rogers, and finds it to agree with the former species. (See also Proc. Roy. Soc. of Victoria, Vol. 22, 1909, page 19.) Only one Herbarium specimen of the true *P. Tepperi*, F. v. M., exists, and the plant may have become extinct from the single locality (Yorke's Peninsula, South Australia), whence it was recorded.

## PULTENAEA WEINDORFERI, Reader. "Swamp Bushpea." (Leguminosae.)

Dandenong Ranges, Victoria, C. French, Jnr., 4/10/1911.  
Leaves slightly larger than in the original type specimen.



ROMULEA (TRICHONEMA) CRUCIATA, Ker-Gawl. "Onion Grass."  
(Iridaceae.)

White flowered specimen. Essendon, Victoria, C. French, Jr., 20/9/1911.

SENECIO NEBRODENSIS, L. var. GLABRATUS. (Compositae.)

Coode Island, Victoria, J. R. Tovey and C. French, Jr., October, 1908.

A native of Southern Europe and Northern Africa. This very variable plant may be regarded as an exotic not yet sufficiently established to be considered naturalised.

SENECIO PTEROPHORUS, DC. var. VERUS. "Rough Senecio."  
(Compositae.)

Railway Reserve, North Melbourne, J. R. Tovey and C. French, Jr., March, 1909; P. R. St. John, April, 1909.

A native of South Africa, now introduced into Victoria, but not yet sufficiently established to be considered naturalised.

STERA, Ewart. New genus. (Compositae.)

Involucres cylindrical, bracts imbricate in several rows, outer shorter and comparatively broader than inner. Receptacle very small. Florets few, 2-5 in each head, hermaphrodite or unisexual, in the latter case the florets contain abortive stamens. Florets all tubular cylindrical, with five teeth scarcely spreading, somewhat swollen towards tip when in bud. Style lobes slightly wider than style itself, about same width throughout, obtuse, slightly thickened, papillose on back. Style glabrous. Achenes from  $\frac{1}{2}$ -2 lines long.

Pappus of numerous bristles barbed towards tip, but smooth at base, in several rows, yellowish in colour.

Shrubby plants with simple alternate, sessile leaves covered with woolly hairs. Heads solitary and terminal on short branches.

STERA CONOCEPHALA (F. v. M.), Ewart and Rees. (Compositae.)

Additional localities not given in Bentham's Flora Australiensis, 50 miles N.W. from Frazer River, West Australia, Victoria Springs; Lake Lefroy, West Australia; Murray Desert, Mallee; Murray, N.W. Bend (?)

Small branching shrub covered with grey woolly vestiture, less plentiful on older parts. Leaves crowded, small, flat, 2-4 lines long, obovate to spatulate, alternate, sessile, bearing on their outer surfaces, yellowish woolly hairs at their tips. Shape varies from oval in the basal bracts to long and elliptical in the upper inner ones.

Florets 4, extending beyond involucre. Corolla 5 lines long, cylindrical, much elongated, 5 lobes narrow and scarcely spreading, 5 stamens, abortive within tube of corolla. Style elongated and stigmas project beyond corolla. Achenes  $1\frac{1}{2}$ -2 lines long, slender, elongated glabrous.

STERA MICROPHYLLA, Ewart and Rees. (Compositae.)

(PLUCHEA CONOCEPHALA, F. v. M., var. MICROPHYLLA.)

Lake Lefroy, West Australia.

Shrubby plant covered with vestiture of woolly brownish-grey hairs, which have disappeared from older parts. Leaves crowded, minute, about 1 line long, obovate and obtuse, covered with woolly hairs. Heads 5-6 lines long and  $1\frac{1}{2}$  lines broad in widest part. Bracts scaly, slightly ciliate on outer surface, linear and obtuse, increasing in length from below upwards from 3 to 6 lines.

Florets 2 in each head, extending beyond involucre. Corolla 5 lines long, narrow and cylindrical, 5 abortive stamens within tube of corolla. Style elongated, stigmas project beyond corolla. Achenes  $1\frac{1}{2}$  lines long, slender and glabrous. Pappus more closely barbed than in *S. conocephala*. Differs from *S. conocephala* in general appearance, size of leaves, size and shape of bracts, number of florets in head and barbs on pappus.

STERA SUBSPINESCENS, Ewart and Rees. (Compositae.)

(PLUCHEA CONOCEPHALA, F. v. M., var. SUBSPINESCENS).

Near Hunt's Well, West Australia.

Irregularly branched shrub covered with slight woolly brown vestiture, which has disappeared from older parts. Many of the lateral branches end in blunt spines. Leaves somewhat scattered, 2-4 lines long, lanceolate covered with brownish hairs. Heads terminal on short lateral branches, about 4-5 lines long and 2 lines broad.

Bracts somewhat scaly with hairs on outer surface, varying in shape and size from ovate, 1 line long on the outside, to linear about 5 lines long on the inside.

Florets hermaphrodite, 5 in each head protruding slightly beyond involucre, corolla elongated, cylindrical, 5 segments almost erect. Stamens 5, sagittate at base, connective forming blunt process above. Anthers reaching mouth of corolla tube. Achene about  $\frac{1}{2}$  line long, not so slender as in *S. conocephala* and *S. microphylla*. Pappus wavy at base, barbed closely at tip.

These plants were originally, but only provisionally, given under *Olearia* as *Olearia conocephala* by Bentham, and later transferred by Mueller to *Pluchea*, from which, however, it differs in several important respects. The original description is given in the *Fragmenta Phytographiae Australiae*, Vol. V., p. 79, as follows:—

ASTER CONOCEPHALA.

Fruticose, hairy tomentose. Leaves small, 2-4 lines long, alternate obovate to spatulate, sessile flat entire. Heads terminal solitary, few flowered, rather larger. Involucral bracts oblong, cylindrical to obconical, in several rows, imbricate, scaly, no ligules. Florets extending beyond involucre. Florets bisexual, 4-5 in head, 4 lines long. Corollas elongated, cylindrical in form, teeth erect. Achenes thin, slender glabrous. Pappus bristles becoming yellow and feathery except at base, interior longer, outer rather smaller and shorter.

Other references are to be found in the *Transactions and Proceedings of the Royal Society of Victoria*, Vol. 24, p. 138;

Transactions of the Victorian Institute, 1, page 36; Bentham's Flora Australiensis, Vol. III., page 480; Engler's Pflanzenfamilien, IV. Teil. 4 and 5 Abt. Mueller recognised two varieties under his "*Pluchea coucephala*," but the first of these (*microphylla*) differs from the type in its leaves and bracts, while the second one (*subspinescens*) differs in its bracts, achenes and spinescent character.

WEHLIA, F. v. M., in Fragmenta, X., p. 22 (1876). (Myrtaceae.)

Alterations in Generic Diagnosis. Stamens 20 or indefinite. Anthers versatile or dorsifixed. Calyx tube completely or nearly hidden by the investing bracts.

WEHLIA THRYPTOMENOIDES. (Fragmenta, X., p. 22.)

Localities.—Victoria Springs, Ularing, Young, etc.

WEHLIA THRYPTOMENOIDES var. MICROPHYLLA, Ewart and Rees.

Leaves differ from the type in size ( $\frac{3}{4}$  to 1 line long), and are comparatively wider.

Localities.—Lake Deborah, Hon. Sir John Forrest, 1889; Cowcowing, West Australia, Max Koch, Sept., 1904, No. 1189.

WEHLIA PEDICELLATA, Ewart and Rees, n.sp. (W. THRYPTOMENOIDES, var. PEDICELLATA).

Small shrub, somewhat similar in appearance to *W. thryptomenoides*. Branches are given off more nearly at right angles from the main stem. Leaves larger (2 to  $2\frac{1}{2}$  lines long), less prominently glandular and blunt tipped. Flowers on distinct pedicels, developed in axils of leaves towards the ends of the branches. Flower differs from *W. thryptomenoides* chiefly in number of stamens (25 or rather more). Each stamen has a glandular swelling on the back between the anther lobes.

Locality.—Mount Moore, West Australia, Edwin Merrall, 1889.

WEHLIA PULCHERRIMA, Ewart and Rees, n.sp. (Myrtaceae.)

Towards Coolgardie, West Australia, W. A. Macpherson, 1895.

Branching shrub, branches somewhat elongated. Leaves 2 to  $2\frac{1}{2}$  lines long, linear ovate, 3 angled with bluntly-pointed tip, surface somewhat glandular. Flowers developed in axils of leaves at the ends of the branches, crowded in a head-like inflorescence. Bracts with slightly membranous edges enclosing calyx tube, which is almost or quite hidden. Surface of calyx tube slightly grooved longitudinally. Sepals 1 line long, membranous, ovoid, bluntly pointed. Petals about twice as long as sepals, ovate lanceolate, purplish in colour. Stamens 30 or indefinite, dorsifixed with gland on the dorsal surface between the anther lobes.

*W. pedicellata* is readily distinguished from *W. thryptomenoides* by its larger foliage, stalked flowers and more numerous stamens. *W. pulcherrima* is distinguished from the preceding by its still more numerous stamens (30 or more), terminal clustered inflorescence and larger flowers. Two other species have been described by Baron von Mueller from West Australia, *W. staminosa* (Wings Southern Science Record, III., 1884, p. 282), and *W. coarctata* (Fragmenta, X., p. 23, 1876). The former has a larger number of stamens (up to about 40) than any other species; *W. coarctata* has the leaves neither angular nor pointed, the pedicels longer than the calyx and the stamens as in *W. thryptomenoides*. The leaves readily distinguish it from *W. pedicellata*, which has also pedicels longer than the calyx.

#### EXPLANATION OF PLATES.

##### PLATE LII.

*Capparis umbonata* (Figs. 1-2), *Erythrostachys proliferata*.

Fig. 1.—Fruit of *Capparis umbonata*.

2.—The same in transverse section—(a) seed, (b) seed cavity in fruit, (c) fibrous woody pulp.

3-7.—*Erythrostachys proliferata* (T. Ag.). J. White.

- Fig. 3.—Frond of *Erythrostachys prolifera* (natural size).  
 4.—Tertiary branch (highly magnified).  
 5.—Small portion of transverse section of the main axis (magnified).  
 6.—Small portion of transverse section of the central part of the main axis (highly magnified), (e) cells filled with vacuolar physodes.  
 7.—Small portion of longitudinal section of the main axis (magnified).

## PLATE LIII.

*Hymenophyllum peltatum* (Poir), Desv.

- Fig. 1.—a. Frond of *Hymenophyllum peltatum*.  
 b. Sorus of same.  
 c. Sporangium of same.  
 2.—a. Frond of *H. multifidum*.  
 b. Sorus of same.  
 c. Sporangium of same.  
 3.—a. Frond of *H. tunbridgense*.  
 b. Sorus of same.  
 c. Sporangium of same.

## PLATE LIV.

*Pimelea Treyvaudi*, (F. v. M.) Ewart and Rees.

- Fig. a.—Portion of plant of *P. Treyvaudi*.  
 b.—Bract (much enlarged).  
 c.—Flower (enlarged).  
 d.—Flower opened up to show attachment of stamens and the gynaeceum.

## PLATE LV.

*Stera*, Ewart.

- Fig. a.—Portion of *Stera conocephala*, Ewart and Rees (natural size).  
 b.—Portion of *Stera microphylla*, Ewart and Rees.  
 c.—Portion of *Stera subspinescens*, Ewart and Rees.

